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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,922	12/19/2001	Naoto Yasaka	1155-0236P	8872

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EXAMINER
AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 03/28/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/020,922	YASAKA ET AL.	
	Examiner	Art Unit	
	Walter B Aughenbaugh	1772	

-- The MAILING DATE of this communication appears on th cover sheet with the correspondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract does not mention the package of claims 4-7 or the cup with cover of claims 8. Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: the phrase provided on lines 2-3, "a cover of a laminate and a cup of a resin layer of polypropylene (II)", must be revised in order to comply with 35 U.S.C. 112, first paragraph. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms."

Appropriate correction is required.

Claim Objections

3. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1, upon which claim 2 depends, does not require the inclusion of ethylene/α-olefin copolymer (B) in the composition. Claim 2 recites a limitation directed to solely the ethylene/α-olefin copolymer (B), and therefore does not constitute a further limitation since the ethylene/α-olefin copolymer (B) is not a required component of the composition.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5 and 8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In regard to claims 5 and 8, it is unclear from the specification how the sealant layer functions as a sealant layer when it is situated between two layers of a different composition from the composition of the sealant layer. The base and propylene layers would prevent the intermediate "sealant" layer from functioning as a sealant layer for the purpose of forming a package sealed with a hermetic seal.

In further regard to claim 8, the specification lacks a clear description as to how the cover is joined to the cup to form a hermetic seal (see especially pages 19-21 of specification). The layer of the laminate that is contact with the cup such that a hermetic seal is formed is not identified. It is not seen how the sealant layer is in contact with the cup, since the sealant layer is situated between two layers of a different composition from the composition of the sealant layer.

In further regard to claim 8, the specification states that the laminate is formed into a cup (lines 1-5 of page 20), yet the specification also strongly suggests that the cup is a single layer of polypropylene (lines 17-18 and 22 of page 20). This inconsistency is evidence that the specification does not contain a written description of the invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention. The fact that the cup is "of a resin layer of polypropylene (II)" (line 22) while the "laminate as a cover" has "a resin layer of

polypropylene (II)" further compromises the description of the invention. Are the cup and cover both made of the laminate which includes the "resin layer of polypropylene (II)", or is only one of the cup and the cover formed from the laminate, and if so, which one? The answers to these questions cannot be definitively answered by consulting the specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 3 and 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, the recitation "and/or" in line 16 of the claim is indefinite. While the required components of the composition are elucidated in 28th-31st lines of the claim (the first five lines of page 32), the claim should be amended to more clearly recite the required components of the composition.

In regard to claim 3, the recitation "with respect to the linear low density polyethylene (C)" is indefinite. Replace with "of the linear low density polyethylene (C)" if this is indeed the intended language of the claim.

The term "easily openable" in claims 4-8 is a relative term which renders the claim indefinite. The term "easily openable" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. "Easily" is indefinite and the structure as to how the package is "openable" is not definitely recited.

The term "hermetically" in claims 4-8 is a relative term which renders the claim indefinite. The term "hermetically" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In regard to claim 5, the claim should positively set forth the purpose of the package and the structure necessary for carrying out the purpose, i.e., the claim is incomplete in regard to the structure of the package. The structure as to how the package is hermetically sealed is not recited; therefore, the term "hermetically sealed" is rendered indefinite.

In regard to claim 8, the recitation "package comprising a cover of a laminate and a cup of a resin layer of polypropylene" is indefinite. The structure intended to be recited by this phrase is indefinite. Does the "cover of a laminate" cover a cup formed from a laminate as the phrase "a cover of a laminate" suggest? Does the cup consist of a polypropylene layer or is the cup the laminate, in which case the cup would comprise a polypropylene layer? Is the resin layer of polypropylene of the "cup of a resin layer of polypropylene (II)" (second-third lines of claim) the same as the "resin layer of polypropylene (II) laminating" of the laminate (third-sixth lines of claim), or are these polypropylene layers distinct layers?

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the structural relationship between the cover and the cup. How are the cover and the cup joined with each other to effect a hermetic seal, not only from a structural point of view but from a compositional point of view? The structure as to how the package is

hermetically sealed is not recited; therefore, the term "hermetically sealed" is rendered indefinite. If the sealant layer (I) is situated between two layers of a different composition from the composition of the sealant layer, how does the sealant layer function as a sealant layer? Which layer of the laminate is bonded with what layer of the cup or the cover, depending on which is the laminate and which is not the laminate, unless both the cup and cover are formed from the laminate, to effect the hermetic seal?

In further regard to claim 8, the phrase "base layer of a member" is indefinite. The structure intended to be recited by this phrase is indefinite. The phrase "selected from among" should be replaced with "selected from the group consisting of" to place the claim language in proper U.S. format.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3, 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al.

In regard to claim 1, Yamamoto et al. teach a sealant for polypropylene (col.8, lines 54-63) comprising a high pressure processed low density polyethylene having a density of 915 to 930 kg/m^3 (equivalently 0.915 to 0.93 g/cm^3) and a melt flow rate of 0.1 to 20 g/10 min. (col. 2, lines 51-57) and a linear low density polyethylene having a density of not more than 935 kg/m^3 and a melt flow rate of 2 to 30 g/10 min. obtained from ethylene and an α-olefin having 3 to 18

carbon atoms (col. 2, lines 20-26 and 31-38). Yamamoto et al. teach that the high pressure processed low density polyethylene is present in an amount of 1 to 50% by weight (col. 2, line 53) and that the linear low density polyethylene is present in an amount of 50 to 99% by weight (col. 2, lines 34-35). Yamamoto et al. teach that the melt flow rate of the sealant composition is within a range of from 5 to 25 g/10 min. and that the melt tension of the sealant composition is not less than 1.0g, which is equivalent to 9.8mN (col. 8, lines 27-36). Furthermore, note that the recitation "consisting essentially of" does not mean "consisting of". *Ex parte Appeldorn & Gilkeson* (PO BdApp) 159 USPQ 791. In regard to the limitation that the low density polyethylene is "high pressure processed", the method of forming the low density polyethylene is not germane to the issue of patentability of the sealant itself. Therefore, this limitation has been given little patentable weight.

In regard to claim 3, Yamamoto et al. teach that the molecular weight distribution of the linear low density polyethylene is about 2.0 (col. 10, lines 61-64 and Table 1, col. 13, line 37). In regard to claim 4, Yamamoto et al. teach a two-layer laminate having a layer of the sealant and a polypropylene base layer (col. 8, lines 45-63). Yamamoto et al. teach that the laminate is formed into packaging for various foods and pharmaceutical products (col. 19, lines 48-52), which require a hermetic seal, and furthermore, Yamamoto et al. therefore teach a package formed from the laminate. In regard to the limitation that the sealant layer "is overlaid... by heat sealing laminating", the method of forming the package is not germane to the issue of patentability of the package itself. Therefore, this limitation has not been given patentable weight. Furthermore, in regard to the term "easily openable", it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only

requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

In regard to claim 7, the claim recites solely a process limitation (the sealant layer "is formed by inflation molding or cast molding") which has not been given patentable weight since the method of forming the package is not germane to the issue of patentability of the package itself.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al.

In regard to claim 5, Yamamoto et al. teach the package as discussed above. Yamamoto et al. also teach that the sealant layer is sandwiched between base layers in a sandwich laminate where the base layers are selected from polyesters, polyamides, aluminum foil or polyolefins

such as polypropylene (col. 8, line 54-col. 9, line 4). While Yamamoto et al. teach that the sealant layer has a thickness of 20μm (col. 11, lines 11-14), Yamamoto et al. fail to teach that the sealant layer has a thickness of 5 to 10μm. The exact thickness of the sealant layer is deemed to be a cause effective variable with regard to the seal strength of the laminate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum value of a cause effective variable such as the thickness of the sealant layer through routine experimentation in the absence of a showing of criticality in the thickness of the sealant layer. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

In regard to claim 6, Yamamoto et al. teach the package as discussed above. Claim 6 recites solely a process limitation (the base layer "is laminated" with the sealant layer "by extrusion laminating") which has not been given patentable weight since the method of forming the package is not germane to the issue of patentability of the package itself.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. and in further view of Yamada et al.

Yamamoto et al. teach the package as discussed above. Yamamoto et al. further teach that the sealant layer has a thickness of 30μm and that a nylon (polyamide) base layer has a thickness of 15μm (col. 12, lines 54-61). Yamamoto et al. fail to teach that the package comprises a cover of a laminate and a cup of a resin layer of polypropylene. Note that the structure recited by claim 8 is indefinite as discussed in the 35 U.S.C. 112, second paragraph rejection to claim 8. Examiner interprets the recitation "package comprising a cover of a laminate and a cup of a resin layer of polypropylene" to mean that the cup is a laminate which

includes a polypropylene layer, and that the cup has a cover. Yamada et al. teach a cup formed from a laminate having a surface layer of polypropylene (item 1, Figure 2, col. 2, line 63-col. 3, line 5), an intermediate layer comprising a mixture of low density polyethylene and linear low density polyethylene (item 2, Figure 2, col. 4, lines 36-47) and a base layer (item 3, Figure 2, col. 2, lines 60-62). Yamada et al. further teach that the cup is sealed with a lid (a cover as claimed) to produce a hermetically sealed container. Therefore, one of ordinary skill in the art would have recognized to have formed the laminate taught by Yamamoto et al. into a cup and to have hermetically sealed the cup with a cover since Yamada et al. teach that it is notoriously well known to form a cup from a multilayer laminate having a surface layer of polypropylene, an intermediate layer comprising a mixture of low density polyethylene and linear low density polyethylene and a base layer and to hermetically seal the cup with a cover as taught by Yamada et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have to have formed the laminate taught by Yamamoto et al. into a cup and to have hermetically sealed the cup with a cover since Yamada et al. teach that it is notoriously well known to form a cup from a multilayer laminate having a surface layer of polypropylene, an intermediate layer comprising a mixture of low density polyethylene and linear low density polyethylene and a base layer and to hermetically seal the cup with a cover as taught by Yamada et al.

Furthermore, in regard to the term "easily openable", it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only

requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Furthermore, in regard to the phrase "is overlaid" line 5 and "is overlaid... by laminating" lines 8 and 10 are process limitations which have not been given patentable weight since the method of forming the package is not germane to the issue of patentability of the package itself.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba
03/18/03 WBA

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

3/21/03